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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,133	01/28/2004	Stanislas Bourdeaut	Q79492	3585

23373 7590 12/29/2006  
SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER
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BRANDT, CHRISTOPHER M

ART UNIT	PAPER NUMBER
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2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/29/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/765,133

Applicant(s)

BOURDEAUT

Examiner

Christopher M. Brandt

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/28/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 USC 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The information disclosure statement submitted on January 28, 2004 has been considered by the Examiner and made of record in the application file.

### ***Specification***

The disclosure is objected to because of the following informalities: The disclosure is not in the proper form with proper section headings.

Appropriate correction is required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

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- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "A Method of Implementing Different Transfer Modes in Relation to Different Bit Rates Corresponding to Different Modulation Schemes".

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1-2, 4, 6-8** are rejected under 35 USC 103(a) as being unpatentable over **Hunzinger et al. (US PGPUB 2002/0172192 A1)** in view of **Parantainen et al. (US Patent 7,092373 B2)**.

Consider **claim 1**. Hunzinger et al. (hereinafter Hunzinger) disclose a method of optimizing the performance of a mobile radio system in which different transfer modes correspond to different bit rates corresponding to different modulation schemes and the protocol architecture uses ARQ channels that can operate in an acknowledged mode or in a non-acknowledged mode, in which method, in a transfer mode corresponding to the highest bit rates, acknowledgment information is sent in the non-acknowledged mode from a receiver to a sender and can be taken into account by the sender (paragraph 109, read as in CDMA, different modulation schemes are allocated for use at different data rates. The concepts of the present invention may be applied to assign multiple modulation schemes across a range of possible data rates using modulation scheme messages. Different acknowledgment delays (time for sending an acknowledgment message (ACK) or a non-acknowledgement message (NAK) after receiving a frame/slot/packet) may be assigned across a range of possible data rates. A different number of ARQ channels may be assigned across a range of possible data rates, because more ARQ channels/slots (e.g. odd and even channels) are needed to send ACK or NAK messages at higher data rates. The concepts of the present invention may be applied to assign an number of ARQ channels across a range of possible data rates using ARQ channel messages. It is also noted that Hunzinger discloses a MS (mobile station) and a BS (Base Station) read as receiver and sender).

Hunzinger discloses the claimed invention except he fails to explicitly use the term the radio link control layer.

However, Parantainen et al. (hereinafter Parantainen) disclose the term radio link control layer (column 9 line 53 – column 10 line 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Parantainen into the method of Hunzinger in order to be able to transmit a flow of RLC data blocks through an uplink TBF (column 9 line 53 – column 10 line 2).

Consider **claim 2 and as applied to claim 1**. Hunzinger and Parantainen disclose a method wherein said transfer modes include the General Packet Radio Service (GPRS) mode and the Enhanced General Packet Radio Service (EGPRS) mode (Parantainen; see column 6 line 65 – column 7 line 7, table 2).

Consider **claim 4 and as applied to claim 1**. Hunzinger and Parantainen disclose a method wherein said acknowledgment information is taken into account by an RLC sender to estimate transmission quality (Hunzinger; paragraph 58).

Consider **claims 6-8 and as applied to claim 1**. Hunzinger and Parantainen disclose a mobile station, mobile radio system equipment, and a mobile radio system including means for implementing a method according to claim 1 (Hunzinger; paragraph 9).

**Claims 3** is rejected under 35 USC 103(a) as being unpatentable over **Hunzinger et al.** (US PG PUB 2002/0172192 A1) in view of **Parantainen et al.** (US Patent 7,092,373 B2) and further in view of **Puharinen (8309700 Advanced Topics in Telecommunications)**.

Consider **claim 3 and as applied to claim 1**. Hunzinger and Parantainen disclose the claimed invention except they fail to explicitly state wherein said acknowledgment information includes a Starting Sequence Number (SSN) and a Received Block Bitmap (RBB) sent in an acknowledgement/non-acknowledgment (ACK/NACK) message.

However, Puharinen disclose wherein said acknowledgment information includes a Starting Sequence Number (SSN) and a Received Block Bitmap (RBB) sent in an acknowledgement/non-acknowledgment (ACK/NACK) message (paragraph 2 in section 6. Error Control).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Puharinen into the methods of Hunzinger and Parantainen in order to determine whether a block was correctly / incorrectly received and to associate each bit with a correct element (paragraphs 2 and 3 in section 6. Error Control).

**Claim 5** is rejected under 35 USC 103(a) as being unpatentable over **Hunzinger et al. (US PG PUB 2002/0172192 A1)** in view of **Parantainen et al. (US Patent 7,092,373 B2)** and further in view of **Balachandran et al. (US Patent 6,567,375 B2)**.

Consider **claim 5 and as applied to claim 4**. Hunzinger and Parantainen disclose the claimed invention except they fail to explicitly mention wherein said transmission quality estimate is used for radio link adaptation.

However, Balachandran et al. (hereinafter Balachandran) disclose wherein said transmission quality estimate is used for radio link adaptation (column 3 lines 48-59).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Balachandran into the methods of Hunzinger and Parantainen in order to be able to test the radio link and then help provide the improvements (column 3 lines 34-59).

#### Conclusion

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

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**Hand-delivered responses** should be brought to

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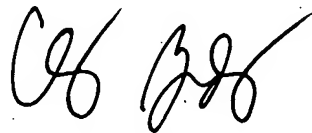
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Brandt whose telephone number is (571) 270-1098. The examiner can normally be reached on 7:30a.m. to 5p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

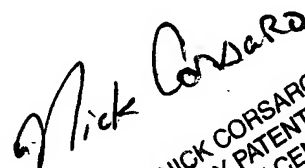
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.



Christopher M. Brandt

C.M.B./cmb

December 20, 2006



NICK CORSARO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600